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09/691,421	10/17/2000	Xiao Ping Zhou	SYMXP001	6791

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RITTER, LANG & KAPLAN
12930 SARATOGA AE. SUITE D1
SARATOGA, CA 95070

EXAMINER

QUAN, ELIZABETH S

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 09/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/691,421

Applicant(s)

ZHOU ET AL.

Examiner

Elizabeth Quan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-21 and 23-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-21 and 23-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It appears that neither the specification nor drawings provide support for a nonporous, rigid sealing device. The specification provides possible materials with which the invention can be made.

3. Claims 1-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 recites nonporous, rigid sealing device. The specification has not given a definition or adequate description as to what constitutes "nonporous." All materials are porous to some degree at the molecular level, including metals such as aluminum, etc. Porous is a relative term, and it is unclear what the sealing device is nonporous to. The specification gives a list of possible rigid materials; however, it does not define what constitutes a rigid material, as rigid is a relative term.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10, 12, 13, 19, 20, 26-29, 34 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 98/36826 to Wendelbo et al.

Referring to claims 1-10, 12, 13, 19, 20, 26-29, 34, Wendelbo et al. disclose an apparatus for use in a parallel reaction block comprising a base (2) with a plurality of wells (1) (e.g. 10-10,000 wells from 0.2 to 2 ml). The wells are through-going perforations or holes permanently closed at one end. The block can be made from stainless steel, aluminum, titanium, PEEK, other rigid material (see PAGE 5, lines 36-PAGE 6, lines 10, PAGE 7, lines 5-9). The apparatus comprises sealing means positioned over the wells for individually sealing each of the wells. The sealing means can be fastened on either of the covers (7a) or (7b), polymer film (3), or thin metal plate (see PAGE 7, lines 23-25). The sealing means can be balls (4) (e.g. sealing caps), conical, or hemispherical protrusions that fit into the wells (see PAGE 7, lines 24-30). Since the balls may be made of materials, such as steel or glass, and the supporting layer in which the balls are attached may be made of a polymer such as Teflon or metal plates, the sealing device is considered nonporous and rigid. Since Applicant has not provided a definition of rigid and nonporous and rigid is a relative term and every material is to some degree porous, Examiner takes the position that Teflon is both rigid and nonporous since it holds its shape without considering bending and the object of the invention is to provide leak-tight wells. Alternatively,

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Wendelbo et al. teach the base (2) machined or fastened with sharp protrusions (14) (see PAGE 7, line 31-PAGE 8, line 3). The sharp protrusions (14) could alternatively consist of rings or rectangular grid that are either welded onto the central block (2) or fastened by any other suitable method (see PAGE 7, lines 31-38; PAGE 8, lines 1-3). The base comprises a plurality of aligned openings for receiving bolts (11) used to attach the cover to the base and force the sealing device into contact with the base (see FIG. 3). The multiautoclave may alternatively be closed by pressing the plates against each employing a clamping or squeezing mechanism that makes through-going bolts unnecessary (see PAGE 8, lines 5-12). Additionally, the sealing means may be spring-biased (see PAGE 8, lines 10-13). Therefore, Wendelbo et al. include all the limitations in claims 1-10, 12, 13, 19, 20, 26-29, 34.

3. Claims 30, 33, 34 are rejected under 35 U.S.C. 102(b) as being unpatentable over U.S. Patent No. 5,741,463 to Sanadi.

Referring to claims 30, 33, 34, Sanadi discloses an apparatus comprising a base (115) with a plurality of wells (118). A plurality of vessels (119) is positioned within the wells. The vessels have an open upper end with chamfered ridges (120,130) (see FIG. 8A). The apparatus comprises sealing means (122) positioned over the wells for individually sealing each of the wells. The sealing means comprises a plurality of sealing caps (132) wherein a chamfered ridge (128) is formed in the lower end of the sealing cap (see FIG. 8A). The sealing means is formed from a material softer than the protrusions (see COL. 11, lines 16-54). The assembly includes a cover (126) positioned over the sealing means. Sanadi discloses the use of bolts (63) and holes (67) along with clips to secure the cover to the base (see FIG. 4). Therefore, Sanadi includes all the limitations in claims 30, 33, and 34.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Alternatively, claims 1-10, 12, 13, 19, 20, 26-29, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/36826 to Wendelbo et al. in view of U.S. Patent No. 5,484,731 to Stevens or U.S. Patent No. 5,961,926 to Kolb et al. and U.S. Patent No. 6,274,088 to Burbaum et al. (in the alternative)

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Referring to claims 1-10, 12, 13, 19, 20, 26-29, 34, Wendelbo et al. disclose the sealing device with holes for through-going bolts. Wendelbo et al. also disclose that alternative locking means, such as clamps, may be used to lock the plates together such that through-going bolts would be unnecessary as well as the holes for the through-going bolts, which are the only holes in the plates (see PAGE 8, lines 5-12). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Wendelbo et al. to exclude the only holes in the plate, which are the holes for the through-going bolts, when alternative art-recognized equivalent locking means, such as clamps, are used instead of through-going bolts as a manufacturing expedient in excluding the unneeded holes. Furthermore, Burbaum et al. show that the sealing device (130) is smaller in dimension than the base and cover such that it may be securely sandwiched between the base and cover without putting holes through the sealing device (see FIG. 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Wendelbo et al. to make the sealing device smaller than the base and cover such that it may be secured between the base and cover using bolts without putting holes through the sealing device as in Burbaum et al. to allow easy removal of the sealing device and flexibility in positioning the device without the limitation of positioning by bolts going through predetermined holes.

In the event that one would argue that the protrusions of Wendelbo et al. pertain only to the polymer sheet, Kolb et al. and Stevens each disclose a chamfered ridge along the periphery of each well to prevent cross contamination. Stevens further disclose a chamfered ridge on the sealing device. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Wendelbo et al. to provide a

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chamfered ridge on the base as in Stevens or Kolb et al. such that when the sealing device is positioned over the base a barrier is formed adjacent and outside the wells to prevent cross contamination.

8. Claims 1, 3, 6-8, 12, 13, 15, 17, 19-21, 26, 28, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,741,463 to Sanadi in view of WO 98/36826 to Wendelbo et al. (in the alternative)

Referring to claims 1, 3, 6-8, 12, 13, 15, 17, 19-21, 26, 28, 29, Sanadi discloses an apparatus comprising a base (115) with a plurality of wells (118). A plurality of vessels (119) is positioned within the wells. The vessels have an open upper end with chamfered ridges (120,130) (see FIG. 8A). The apparatus comprises sealing means (122) positioned over the wells for individually sealing each of the wells. The sealing means comprises a plurality of sealing caps (132) wherein a chamfered ridge (128) is formed in the lower end of the sealing cap (see FIG. 8A). The sealing means is formed from a material softer than the protrusions (see COL. 11, lines 16-54). The assembly includes a cover (126) positioned over the sealing means. Sanadi discloses the use of bolts (63) and holes (67) along with clips to secure the cover to the base (see FIG. 4).

Sanadi discloses that the objects of the invention include preventing cross-contamination among vessels within the wells, hazardous contamination to the operator from exposure to the contents of the vessels within the wells, and contamination to the contents of the vessels within the wells (see COL. 1, lines 59-67; COL. 2, lines 37-41, 60, and 61). Sanadi discloses that the base and thus the closed end of each well may be formed of a number of fluid impervious materials, such as a rigid plastic (see COL. 2, lines 61 and 61). Sanadi does not address the

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porosity or rigidity of the sealing device. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Sanadi to make the sealing device from a fluid impervious material, such as a rigid plastic to prevent cross-contamination among vessels within the wells, hazardous contamination to the operator from exposure to the contents of the vessels within the wells, and contamination to the contents of the vessels within the wells. Furthermore, Wendelbo et al. disclose making the sealing balls from a nonporous rigid material, such as steel, and sealing support layer in which sealing balls are attached from nonporous rigid materials, such as aluminum, stainless steel, and titanium such that they can withstand high temperatures as required to perform assays (see PAGE 7).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Sanadi to provide a nonporous rigid sealing device as in Wendelbo et al. such that the device can withstand high temperatures as required to perform assays.

9. Claims 9, 18, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,741,463 to Sanadi in view of Wendelbo et al. (in the alternative).

Referring to claims 9, 18, and 32, Sanadi in view of Wendelbo et al. (in the alternative) disclose(s) a base, which comprises a plurality of reaction wells containing vessels but fail to disclose the use of more than 152 vessels. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to increase the number of vessels since it would have increased reaction throughput. Additionally, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art (*In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)).

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10. Claims 14 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/36826 to Wendelbo et al. in view of U.S. Patent No. 5,484,731 to Stevens or U.S. Patent No. 5,961,926 to Kolb et al. and U.S. Patent No. 6,274,088 to Burbaum et al. (in the alternative) or U.S. Patent No. 5,741,463 to Sanadi in view of WO 98/36826 to Wendelbo et al. (in the alternative).

Referring to claims 14 and 31, Wendelbo et al. in view of Stevens or Kolb et al. and Burbaum et al. (in the alternative) or Sanadi in view of Wendelbo et al. (in the alternative) disclose(s) a base that is rectangular in shape but fail to disclose a circular base. However, it would have been obvious to one having ordinary skill in the art to have changed the shape of the base since it has been held that the configuration of a container is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant (*In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) and MPEP 2144.04 (II,iv,b)).

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,741,463 to Sanadi in view of WO 98/36826 to Wendelbo et al. (in the alternative)

Referring to claim 16, Sanadi in view of Wendelbo et al. (in the alternative) disclose(s) a base, which comprises a plurality of reaction wells containing vessels, but fail to disclose that the vessels are made from stainless steel. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the vessels from stainless steel since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (*In re Leshin*, 125 USPQ 416).

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12. Claims 1, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,741,463 to Sanadi in view of U.S. Patent No. 5,035,866 to Wannlund and WO 98/36826 to Wendelbo et al.

Referring to claims 1, 23, and 24, Sanadi an apparatus comprising a base (79) with a plurality of wells (78) (see FIG. 5). The apparatus comprises a sealing means (81) positioned over the wells for individually sealing each of the wells. The sealing means comprises a plurality of sealing caps (82). It appears that the sealing means is formed from a material softer than the base based on the interaction of the sealing means and base as disclosed in Sanadi. The base comprises a plurality of gaskets (77) each positioned around the periphery of the wells. It appears the gasket is made from a material softer than the material of the sealing cap.

In the event one would argue that the sealing means is not formed from a material softer than the base, Wendelbo et al. disclose that the sealing means is formed from a material softer than the base to obtain an effective seal. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Wendelbo et al. to provide a sealing means formed from a material softer than the base as in Sanadi to obtain an effective seal.

Sanadi discloses that the objects of the invention include preventing cross-contamination among vessels within the wells, hazardous contamination to the operator from exposure to the contents of the vessels within the wells, and contamination to the contents of the vessels within the wells (see COL. 1, lines 59-67; COL. 2, lines 37-41, 60, and 61). Sanadi discloses that the base and thus the closed end of each well may be formed of a number of fluid impervious materials, such as a rigid plastic (see COL. 2, lines 61 and 61). Sanadi does not address the

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porosity or rigidity of the sealing device. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Sanadi to make the sealing device from a fluid impervious material, such as a rigid plastic to prevent cross-contamination among vessels within the wells, hazardous contamination to the operator from exposure to the contents of the vessels within the wells, and contamination to the contents of the vessels within the wells. Furthermore, Wendelbo et al. disclose making the sealing balls from a nonporous rigid material, such as steel, and sealing support layer in which sealing balls are attached from nonporous rigid materials, such as aluminum, stainless steel, and titanium such that they can withstand high temperatures as required to perform assays (see PAGE 7).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Sanadi to provide a nonporous rigid sealing device as in Wendelbo et al. such that the device can withstand high temperatures as required to perform assays.

Sanadi does not disclose sealing caps with a chamfered ridge. Wannlund discloses that sealing caps (30) has sides that taper inwardly from the top to the bottom of the caps to permit the caps to be nested within the wells (see COL. 8, lines 16-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Sanadi to provide caps with chamfered ridges as in Wannlund such that the caps are nested within the wells to minimize evaporation from the wells.

Sanadi does not disclose that the sealing cap is formed from steel. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to

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form the sealing cap from steel as taught by Wendelbo et al. such that it can withstand high temperatures.

Sanadi fails to disclose that the gasket is made from copper. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the gasket from copper since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (*In re Leshin*, 125 USPQ 416).

Response to Arguments

13. Applicant's arguments filed 7/3/2003 have been fully considered but they are not persuasive.

Applicant argues that Wendelbo et al. do not disclose a rigid sealing device or a rigid contact surface formed on one of the sealing device and the base to create a knife-edge seal between the sealing device and the base. Applicant further argues that the sealing device of Wendelbo et al. is a thin polymer sheet, such as a gasket material, that provides a surface for the sharp edges to cut into. Applicant points to FIG. 5b and argues that the sharp edges easily cut deeply into the polymer sheet, which does not have a rigid contact surface.

Examiner directs Applicant to PAGE 7 of Wendelbo et al. On lines 14-18 it is disclosed that the seal balls may be made from Teflon, steel, PEEK, Nylon or glass. On lines 23-27 it is disclosed that the balls may be fastened on the **bottom and top plates**, separate polymer films, or a **thin metal plate**. The bottom and top plates may be made from aluminum or steel (see EXAMPLE 1, PAGE 10, lines 7 and 8). These are rigid, nonporous materials. It is also noted that the term rigid is a relative term. Indeed Wendelbo et al. do disclose that the protrusions cut

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into the polymer sheet. In the EXAMPLES provided by Wendelbo et al. the polymer sheet may be Teflon, which may be characterized as a rather rigid material. It is noted that just because sharp edges can cut into a sheet, it does not mean the sheet is non-rigid. Sharp edges can cut into a metal sheet, such as aluminum (a material disclosed in the instant application) if sufficient force is applied. It is also noted that the sharp edges do not cut deeply into every possible position of the sealing device such that there is still a rigid contact surface. It also appears from the drawings that the sharp edges do not cut entirely through the sealing device, such that there is still a rigid contact surface between the sealing device and sharp edges at the point of contact. Therefore, no holes are created in the sealing device. Applicant has not defined "nonporous" or for that matter "porous." Examiner takes the position that every material is to some degree porous at the molecular level. Porous is a relative term. It is unclear what the sealing device is nonporous to. Therefore, Teflon must be nonporous if the object of the invention is to provide leak-tight wells. It is also noted that Wendelbo et al. also disclose that the sealing device is not limited to the polymer sheet. In fact, the sealing device may be made of metals.

Applicant argues that Sanadi does not teach a knife-edge seal between a sealing device and base as required by claim 1 or chamfered edges which deform a sealing device when the sealing device is forced into contact with the chamfered edges as required by claim 30.

Applicant further argues that the cap and tubes of Sanadi are configured simply to provide a friction fit between two mating surfaces (wall of cap and flared neck of tube). Applicant further argues that Sanadi does not disclose a contact surface formed from a material softer than a material of the chamfered ridges, as required by claims 1 and 30.

Examiner directs Applicant to COL. 11, lines 23-36 of Sanadi, which discloses that sealing requires little pressure between ridges (120,130) of the base and walls (128) of the sealing device and upon removal of the clamp fastening the sealing device to the plate the sealing device will rise a little bit, providing some degree of rebound without the use a rubber-like gasket material. Since the walls of the sealing device flexes to the application and removal of clamps to provide some degree of rebound, the sealing device suffers some degree of deformation. According to the instant specification, the knife-edge seal is created by the ridges (26) deforming a surface of the sealing device at contact locations and in some cases the ridges may also cut into the sealing device. Since it has been established that the seal device deforms at contact locations, a knife-edge seal is created upon mating the ridges of the base and walls of the sealing device. Since the walls of the sealing device not the base with the chamfered ridges rises from the release of the clamp, the walls of the sealing device is made from a material softer than the chamfered ridges of the base.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They include one or more limitations in the claims.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Quan whose telephone number is (703) 305-1947. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (703) 308-4037. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elizabeth Quan
Examiner
Art Unit 1743

eq


Jill Warden
Supervisory Patent Examiner
Technology Center 1700